



Validity of the Yale Food Addiction Scale for Children (YFAS-C): Classical test theory and item response theory of the Persian YFAS-C

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Abstract

Purpose To examine whether the child/adolescent version of the Yale Food Addiction Scale (YFAS-C) is valid to assess the Iranian adolescents who are overweight.

Methods After using an internationally standardized method to translate the YFAS-C into Persian, 1186 overweight/obese adolescents aged between 13 and 18 years participated in the present study [666 males; mean age = 15.5 (SD = 1.9) years; zBMI = 2.5 (1.0) kg/m²]. All the participants completed the Persian YFAS-C alongside Persian versions of the following scales: Eating Disorder Examination Questionnaire (EDEQ), Clinical Impairment Assessment (CIA), Binge Eating Scale (BES), Eating Attitudes Test (EAT-26), and Depression, Anxiety, Stress Scale (DASS-21).

Results At the scale level, confirmatory factor analysis verified the single-factor structure of the Persian YFAS-C. Additionally, the Persian YFAS-C had promising properties regarding internal consistency (KR20 = 0.81), test–retest reliability (intraclass correlation coefficient = 0.83), separation reliability (person separation reliability = 0.77; item separation reliability = 0.98), and separation index (person separation index = 2.04; item separation index = 8.01). At the item level, all items had satisfactory properties in factor loadings, corrected item-total correlation, test–retest reliability, and infit and outfit mean square. Moreover, no substantial differential item functioning (DIF) was found concerning gender (male vs. female) or weight status (overweight vs. obesity). Significant and moderate correlations were found between the Persian YFAS-C and other psychometric scales assessing eating symptomatology and general psychopathology ($r = 0.352$ to 0.484).

Conclusion The Persian YFAS-C is a valid instrument that assists healthcare providers in assessing food addiction among Iranian adolescents.

Level of evidence Level V, cross-sectional descriptive study.

Keywords Adolescence · Eating behavior · Eating disorders · Food addiction · Obesity

Introduction

The fourth and fifth editions of the Diagnostic and Statistical Manual of Mental Disorders (DSM-IV, DSM-5) have both defined addiction using clear diagnostic criteria [1, 2]. However, food addiction (FA) has not been formally recognized despite increasing interest and empirical evidence in the condition. Animal models have demonstrated that it is possible to develop addictive-like behaviors relating to specific foods, especially those high in sugar and fat [3]. Neuroimaging studies on human beings have demonstrated similar findings to those found in animal studies. The neuronal circuits activated by drugs in addiction are similar to the neuronal circuits activated by hyper-palatable food among obese individuals, and both circuits are modulated by dopamine [4, 5]. Therefore, an in-depth understanding of FA is needed for

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